REPORT RESUMES

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TECHNICAL EDUCATION IN THE JUNIOR COLLEGE, EDUCATION 261E SEMINAR-- A STUDY OF TECHNICAL EDUCATION IN THE NORTH ORANGE COUNTY JUNIOR COLLEGE DISTRICT.

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THIS REPORT OF A STUDY OF A 3-CAMPUS, DISTRICT-WIDE PROGRAM, WHERE EACH CAMPUS MEETS ITS LOCAL NEEDS BUT BENEFITS FROM ECONOMICAL CENTRAL PURCHASING AND SERVICING, MAKES SEVERAL RECOMMENDATIONS. ONE DUTY OF THE DISTRICT DIRECTOR MUST BE TO COORDINATE COURSES AMONG THE CAMPUSES, WITH ADULT EDUCATION, AND WITH INDUSTRY. THE NECESSARY ADVISORY COMMITTEES MUST BE CHOSEN ACCORDING TO TYPE, SIZE, AND LOCATION OF INDUSTRY. SPECIAL PERSONNEL SHOULD DO THE PROPOSALS FOR AND REPORTS ON FEDERAL AND OTHER GRANTS. THE DISTRICT DIRECTOR SHOULD PROMOTE AND DIRECT SUCH SPECIAL PROGRAMS AS FEDERAL TRAINING FOR THE DISADVANTAGED. THE COLLEGE MUST BE RESPONSIBLE FOR EFFECTIVE ARTICULATION WITH THE HIGH SCHOOLS AND ALSO FOR PROVIDING ENRICHMENT COURSES AND PLACEMENT SERVICE. A BALANCE MUST BE FOUND THAT WILL AVOID NOT ONLY DUPLICATE COURSES WITH COSTLY EQUIPMENT, BUT ALSO THE GROWTH OF SPECIALTY CAMPUSES. THE 4-QUARTER SYSTEM WILL HAVE DISTINCT ADVANTAGES FOR TECHNICAL PROGRAMS. THE TEACHING STAFF MUST BE RECRUITED FROM ALL POSSIBLE SOURCES, WELL PAID, AND CAREFULLY EVALUATED. TEACHER WORKLOADS MUST BE COMPLETELY RESTUDIED TO DETERMINE EQUITABLE HOURS AND SALARIES, AND UNAVOIDABLE OVERLOADS MUST BE COMPENSATED FOR. PROVISION MUST BE MADE FOR INSTRUCTORS TO KEEP UP TO DATE IN THEIR TRADE AND INDUSTRY. THESE FINDINGS MAY SERVE AS GUIDELINES FOR THE ESTABLISHMENT OF OTHER MULTI-CAMPUS TECHNICAL EDUCATION PROGRAMS. (HH)

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University of California **Los Angeles**

Technical Education in the Junior College

Education 261E ◆◆◆◆◆◆◆◆◆◆◆◆ Seminar

A Study of Technical Education in the North Orange County Junior College District by Members of the Seminar

Fall Quarter ◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆◆ 1967

Division of Vocational Education **1968**

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TECHNICAL EDUCATION IN THE JUNIOR COLLEGE

EDUCATION 261E

SEMINAR

A Study of Technical Education in the North Orange County Junior College District

by

Members of the Seminar

UNIVERSITY OF CALIF.
LOS ANGELES

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UNIVERSITY OF CALIFORNIA, LOS ANGELES
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PREFACE

This report contains a series of papers developed by the members of a seminar in "Technical Education in the Junior College." The seminar group met during the 1967 Fall quarter at UCLA.

One of the major activities of the seminar was to investigate an operating technical education program in a multi-campus junior college district. Through the cooperation of the North Orange County Junior College District, based in Fullerton, California, permission was granted for the seminar members to investigate the program in that district and make use of district data pertinent to the project.

The completion of papers comprising this report should be read in light of the fact that the seminar members are not experts in solving problems of the scope presented. However, they do have practical backgrounds in teaching and administration and their comments and observations provide suggestions worthy of consideration.

Warm appreciation is expressed to the administration of the North Orange County Junior College District for the cooperation and assistance so generously provided, and particularly to Mr. Chester Gromacki, Director of Vocational Education, for his advice and guidance in the planning stage as well as his assistance to the students in making available the data and other information they requested.

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I. INTRODUCTION

DESCRIPTION OF THE NORTH ORANGE COUNTY JUNIOR COLLEGE DISTRICT

The North Orange County Junior College District came into existence in the spring of 1964 when the residents of Anaheim Union High School District, the Brea-Olinda Union High School District, and the Placentia Unified Districts voted to form an interim junior college district to be merged with the Fullerton Junior College District.

The district serves an area of 150 square miles with a current population of 437,744 citizens and a projected population of 1,250,000. Considering these factors, the Trustees of the District elected to develop a multi-campus district. Two additional campuses, in addition to the Fullerton facility, were planned. Of these, Cypress Junior College was organized in 1966. With the realization of this part of its plan, the district began to consider the situation that any organization faces as it grows and has locations in different areas or communities.

This situation is characterized by the necessity to arrive at some basic decisions with respect to centralization vs. decentralization, specialized vs. duplicated functions and services, and local unit vs. central organization as principal focus for identification. These decisions must be considered within the framework of the ecological factors involved. This multi-campus district lies within a 150 square-mile area of high population density. Its three campuses are situated within ten miles of each other, an insignificant distance in an automobile-oriented culture.

The philosophy of the Trustees when forming the district was to permit each college to meet the specific needs and characteristics of the community it served. This philosophy, hopefully, would be implemented while taking advantage of such benefits of a large district as economics, centralized purchasing, avoidance of needless duplication of administrators and service personnel, and other economies of scale.

II. ADMINISTRATION

THE ROLE OF DISTRICT COORDINATION

The Problem

The problem of coordinating vocational programs within the North Orange County Junior College District has been of prime concern for a number of years. The last two accreditation reports made reference to this problem, and the most recent team report included the following statements:

> Within the North Orange County Junior College District, no general plan of coordination of all vocational and technical education is possible. It is recommended that steps be taken immediately to provide for the following general coordination needs:
>
> a. Coordination between campuses.
> b. Coordination between campuses and adult education.
> c. Coordination between the Colleges and business and industry.
>
> This matter is urgent and imperative in order for Fullerton Junior College to continue to meet its stated objectives. It becomes more of a problem as the program continues to grow.

The North Orange County Junior College District has continued to expand its vocational and technical education offerings, but as of this writing has yet to determine or establish coordination functions for the vocational and technical programs. It is imperative that this problem be resolved immediately.

Discussion

One recommendation of the accreditation team, the establishment of a District Director of Vocational Education on the Superintendent's staff has been implemented. The coordination of multi-campus vocational education programs undoubtedly is a district responsibility as well as a campus responsibility. It is the district's role in a multi-campus district to decide where a program shall be offered, and once offered, whether is should be expanded in place or whether a duplicate program should be offered at another campus requiring such instruction. Such decisions, of course, hinge on many factors, including population distribution, programs offered by competing agencies, funding, the needs of local industries, and the like. By and large, the community survey to ascertain need for a program should be conducted by the district. This helps to eliminate possible bias on the part of zealous campus promoters.

As a rule, more students appear for a new program offering than might be anticipated on the basis of community survey findings. Quite aside from population increase in the district, the reason is that the program "is there." Thus, if the per-pupil cost of initial equipment is within reason, the community often is better served by a duplicate program at the other campus (provided staff is available). It is the district's role to keep the separate programs "within the same ballpark" insofar as similarity goes, provided that any mandated changes improve the quality of the program.

In general terms, coordination at the district level should be aimed at (1) insuring that the vocational and technical programs complement one another rather than competing; (2) increasing administrative efficiency by doing things once at the district level rather than once at each campus; and (3) serving as the vocational "conscience" for the district. More specifically, the district may be involved with such matters as federal and state proposals; developing programs; promoting, organizing, and meeting with lay advisory committees; long-range planning of programs and facilities; serving as or providing consultant services to district and campus personnel; and serving as a liaison between the business and industrial community and the local high schools feeding into the junior college district.

Much of this activity is carried on or supervised by the district's Director of Vocational Education. In the North Orange County Junior College District, the Director of Vocational Education is responsible for the specific duties and activities listed below. It appears advantageous not only to list these established duties here as a base for policy in other multi-campus developments, but also to examine them in light of the current and future vocational education needs of the North Orange County Junior College District.

The Director's current duties, according to his job description, are as follows:

1. To serve as a liaison person between the district and the business and industrial community, and to assist in the promotion and development of vocational education programs.

2. To provide assistance to the chief administrators of the campuses and the Director of Adult Education in the interpretation and development of vocational education programs.

3. To provide leadership in the development of a comprehensive program in vocational education on the junior college campuses and also in the Adult Education program of the North Orange County Junior College District.

4. To promote and assist in the development of proposals related to vocational education involving State and/or Federal funds, to assure the compliance of programs with State and Federal regulations, and to advise the chief administrators of available services and financial aid.

5. To promote and assist in the organization of, and the meeting with, lay advisory committees.

6. To serve as a consultant to the Director of the Division of Physical Plant and Facilities in the planning and development of vocational facilities.

7. To serve as a consultant to the Director of the Division of Funds and Business Affairs in the purchase of equipment and supplies for vocational facilities.

8. To assist the Deans of Guidance Services in promoting and developing vocational education.

9. To assist the Director of the Division of Personnel Services in recruiting and credentialing vocational education instructors.

10. To assist in the development of in-service training programs for instructional staff in vocational education.

11. To maintain a friendly relationship with the secondary schools of the North Orange County Junior College District in promoting vocational education.

12. To assist, upon request, the Director of Adult Education in the evaluation of facilities, equipment or instructional programs.

13. To develop, promote, and maintain a friendly relationship with the State Department of Vocational Education and to represent the District at meetings and conferences that are a concern to the District involving vocational education.

14. To perform such other duties as may be assigned by the Superintendent.

The above responsibilities have been defined as "specific", but it would appear that many of the items are rather broad in nature and provide little definition as to the specific functions of the administrative position of Director. It is implied that one of the prime qualifications for this office is a strong understanding of public relations. Also, the administrative functions of the office demand

and should maintain a certain responsibility for the execution of directives and orders.

Another recommendation of the most recent accreditation team was that the staff of the Dean of Technical Arts on the Fullerton Junior College campus be augmented by a minimum of two vocational education coordinators in business and industry. There has been no implementation of this recommendation to date and the basic coordination of the vocational and technical education programs continues as the responsibility of the individual department chairmen. Campus coordination is essential to the over-all effectiveness of the program. Without coordination low morale will result in time as well as deterioration of the program.

The following is a suggested list of specific duties for Coordinators of Vocational Education:

1. To be responsible to the local administrator or Director of Vocational Education for the supervision, program development, reporting, and evaluation of the specific area of vocational education supervised.
2. To recruit and assist in the selection and in-service training of teachers of the vocational education classes supervised.
3. To assist teachers in the development and presentation of improved occupational preparatory curriculums in the vocational area supervised.
4. To consult with local advisory committees in the evaluation and development of the area of vocational education supervised.
5. To promote, publicize, and represent the area of vocational education supervised.
6. To cooperate with the staff of the State Board of Vocational Education in preparing financial, statistical, and descriptive reports and to attend meetings and conferences called by the State Board staff.
7. To work cooperatively with the State Department of Employment in determining present and future manpower needs in the occupational area supervised.

Conclusions or Recommendations

The following recommendations are presented for consideration.

1. The district should provide the Director of Vocational Education with a part-time instructor staff chosen from

various campuses on a semester or quarter basis. This staff could help with:

   a. Running statistical surveys of students, including their needs and requirements.
   b. Delineating underlying problems unique to multi-campus districts and their personnel.
   c. Developing future vocational education administrative staff.
   d. Providing closer contact with local high school programs.

2. The district should redefine, delete or add to the responsibilities of the Director of Vocational Education in the areas of:

   a. Advisory committees. This area currently is very diversified and responsibility is divided among various instructors, department and division heads, chairmen and deans of instruction. This would appear to result in a severe waste of man-hours. The district would be the ideal authority to define the instructor-advisory committee relationship.
   b. Recruitment of teachers. This, again, is a responsibility which everyone seems to share. The district would appear to be a more responsible agent for recruitment and hiring of instructors, although the instructional staff still could and should make recommendations.
   c. Planning and purchase of equipment or supplies. A redefinition of the term "consultant" is needed. It would seem more advantageous for the district to provide a Director to help plan budgets and purchases in consultation with the divisions, rather than having the district's financial personnel assume responsibility for coordination and approval or rejection of district budgetary and purchasing activities.

3. The district Director should be instrumental in developing policy pertinent to the realignment of vocational education programs between campuses. This would appear to be one of his primary responsibilities. Such questions as providing a proportional balance of vocational programs between campuses could be answered only by an individual who had information as to statistics and surveys of local industry, immediate needs of various schools and neighboring districts, student aspirations, and community responsibilities. This most certainly stresses the need for a specific definition of the Director's domain.

Time does not permit a complete study of the current responsibilities of the North Orange County Junior College District's Director of Vocational Education. It can be assumed that many of these recommendations have been considered previously and that others actually are implemented under further definition. The position of Director should be not only a position of diplomacy, but also one that governs policy.

Sources of Information

The California State Plan for Higher Education was utilized as one source. The following are the stated responsibilities of the Director of Vocational Education for Orange Coast College District. The responsibilities of the Director of Vocational Education will be:

1. Program Development

To identify areas in which all occupational programs should be offered, program definition, advisory committee relationships, planning and scheduling.

To be responsible to the local District Superintendent and College President for the overall planning, supervision, and coordination of the total vocational education program.

To be familiar with the various fields of vocational education and to assist each to render maximum service to the community.

To recruit and assist in the selection, credentialing and in-service training of teachers of vocational education classes.

To attend conferences on vocational education called by the State Board of Vocational Education or its official representatives.

To work with Advisory Committees in trade and technical fields, such work to include recruitment of new committee members, periodic field contact with current members, and organization and presentation of data for committee reaction.

To assist in the establishment and supervision of work experience program in the trade and technical fields.

To perform special assignments regarding trade and technical education as identified by the District Superintendent and the college presidents.

Under the direction of Deans of Instruction and Director of Evening College, to assist in the supervision of instruction and stimulate ways and means for improvement of instruction.

To promote and develop certificate programs.

To provide assistance in the interpretation and development of vocational education programs to the District Superintendent, the chief administrators of the campuses, and the Director of Adult Education.

To serve as a consultant to the District Dean of Research and Planning, division chairman, and instructors in the planning and development of vocational facilities.

To serve as a consultant to the Superintendent of Business and division chairmen in the purchases of equipment and supplies for vocational education.

To assist the Deans of Guidance Services in promoting and developing vocational education.

To assist in the development of in-service training programs for instructional staff in vocational education.

2. Liaison - Business and Industry, State and Federal

To be responsible for relationships with state and federal agencies, and reimbursable aspects of vocational education.

To promote and publicize the total program of vocational education.

To prepare financial, statistical, descriptive and other reports for the local administration, the State Board, and other legally qualified persons or groups; to establish and maintain adequate and timely records upon which such reports will be based.

To attend conferences on vocational education called by the State Board or its official representatives.

To work cooperatively with the State Department of Employment in determining present and future manpower needs.

To attend and participate in school, community, business and professional meetings and conferences to improve the program of trade and technical education.

To maintain close liaison with high school industrial arts teachers, such contact to include a flow of information to these instructors regarding the college trade and technical program.

To work continuously with high schools to promote interest in vocational education.

To supply the Administrative Assistant (Publicity) with press data on vocational programs offered in Orange Coast Junior College District.

To serve as a liaison person between the district and the business and industrial community, and to assist in the promotion and development of cooperative educational programs.

To promote and assist in the development of proposals for funding of projects related to vocational education involving State and/or Federal funds and to assure the compliance of programs with State and Federal regulations, and to advise the chief administrators of available services and financial aid.

3. Coordination - Colleges

To carry on planning and organization to assure that there will not be unnecessary duplication between colleges. A regular communication flow should be established between personnel at the various campuses within the school district. It is recommended that regular meetings be held to provide the communications necessary for district planning.

To provide data on community resources, including possible field trip information, guest speaker candidates, etc. for the information and use of teachers.

To work with job placement counselor in locating jobs and making appropriate recommendations.

To maintain complete schedule of all day and evening vocational classes in the district.

To coordinate program and course development for all vocational classes in the district.

4. Evaluation

To carry on continuous assessment with respect to all occupational programs in an attempt to learn how satisfactorily the district is meeting the needs of students and of business and industry in the occupational areas.

To evaluate the various phases of the total vocational education program against standards established by the respective vocational education services, and to provide for improvement in the program.

To represent vocational education in the activities of schools and communities.

To assist the Dean of Research and Planning in the evaluation, research and assessment of vocational programs in the district.

In accomplishing the objectives listed above, it will be necessary for the Director to work closely with the college presidents, evening college director, deans of instruction, division chairmen, and instructors responsible for occupational programs.

It is requested that all matters dealing with occupational education be cleared with the office of the Director of Vocational Education. Such cooperation in attempting to achieve better coordination of occupational education in the Orange Coast Junior College District will be appreciated.

ADVISORY COMMITTEES

The Problem

What should the policy be for development of advisory committees when programs are duplicated in North Orange County Junior College District, a multi-campus district?

Discussion

In reviewing the literature, it is found that the following criteria should be considered in establishing advisory committees:

1. Type of committee.
2. Type of industry to be represented.
3. Size of industry to be represented.
4. Geographic areas to be represented.
5. Distance between campus sites.

The Fullerton Junior College "Advisory Committee Handbook" on organization and use of advisory committees indicates that the overall development of advisory committees follows a current acceptable plan.

In developing advisory committees, it is generally accepted that small committees (6-9 persons) operate more efficiently than large committees. When appointing committee members, however, care must be taken to provide adequate representation both to the industry or occupation concerned and the geographic areas served by the school district.

Recommendations and Conclusions

In consideration of the pattern that is established in this multi-campus district, i.e.:

1. General Advisory Committee
2. Occupational Advisory Committees
3. Joint Apprenticeship Committees

It is recommended that the following advisory committees be established for duplicated programs in a multi-campus district:

1. District-wide advisory committees for the programs that require licensing.
2. District-wide advisory committees for the joint apprenticeship programs.
3. Separate campus advisory committees for specific occupational areas not covered in recommendations 1 and 2.

Sources of Information

"Technical Education in the Junior College." Seminar, UCLA, Education 264 CD, Spring Semester, 1963, Melvin Barlow, Professor. *Summary of Seminar Discussions*.

Organization and Effective Use of Advisory Committees. U. S. Department of Health, Education and Welfare, Office of Education. Washington, D.C.: 1960.

Advisory Committee Handbook. Fullerton: Fullerton Junior College.

Thornton, James W. *The Community Junior College*. New York: John Wiley and Sons, 1960.

SUBMITTING AND REPORTING FEDERAL AND OTHER GRANT PROPOSALS

The Problem

The problem of submitting and reporting on federal proposals is becoming an area of concern to many school districts. North Orange County Junior College District, for the school year 1965-66, received $78,976 in federal funds for vocational education. During the present year (1966-67) $95,311 of federal funds have been approved, and approval of another $107,517 is pending. The reporting and submitting of projects for vocational education alone is a full time job, without considering all the other areas of instruction for which funds are available. In consideration of this problem's importance, some guidelines must be established for the submitting and reporting on federal proposals.

Discussion

Dealing with proposals for federally-funded projects is definitely a district responsibility. Many school districts, including North Orange County Junior College District, have seen fit to hire one or more persons to be specifically responsible for federal proposals and/or research. The responsibilities (job description) of such an employee in the North Orange County Junior College District are as follows:

1. Definition

Under general direction, to be responsible for submitting and reporting Federal and State proposals; to maintain accurate records of proposals and projects; and to do related work as required.

2. Typical Tasks

To maintain a file of sources of funds available to the District through Federal and State acts and keep chief administrators aware of the availability; work closely with faculty and administration in the preparation of proposals that have district administrative approval; collect; compile, and organize information necessary to prepare and submit proposals and reports; coordinate the preparation of proposals by the campuses; responsible for correspondence related to proposals and projects; maintain accurate accounting and inventory records; submit periodic and final reports; assure that the district complies with the intention of the act under which proposals have been submitted; attend meetings and conferences related to proposals and projects; and assign and supervise the work of clerical personnel.

3. Employment Standards

(Training and Experience) Any combination equivalent to graduation from junior college including courses or experience in accounting practices, record keeping, typing, and writing correspondence, with an understanding and knowledge and experience in the preparation of Federal and State educational proposals, and a minimum of five years of public school office or equivalent experience.

(Knowledge and Abilities) Knowledge of modern office methods, procedures, and equipment; ability to maintain accurate files; ability to understand and interpret Federal and State acts as they apply to the preparation and submission of proposals; ability to work harmoniously with faculty and staff in the preparation of proposals; ability to assume responsibility and use sound judgement; and ability to establish and maintain effective relationships with others.

In addition to the North Orange County Junior College District, other districts in Orange County that have such personnel are: Newport Mesa Unified, Laguna Beach Unified, Orange Coast College District, and Fullerton Union High School District. Many other districts in the state have personnel assigned to this prime responsibility.

Perhaps the greatest single contribution that any district might make to this important activity would be to provide an individual specifically responsible for federal and state proposals who could work as a consultant with each campus of a multi-campus district. His responsibility to the campuses would include keeping them informed of monies available and the necessary limitations attached, assisting them in making the initial plans and drafts of appropriate proposals, and in gathering the information necessary, and finally, being responsible for the official submission and reporting. In this manner, local autonomy will be maintained, while at the same time expert guidance and coordination of such activities is provided throughout the district.

If such an assignment is made, the additional funds gained in federal and state grants would more than cover the additional salary. Moreover, experience shows that those districts with such personnel also have the highest record of success in grant applications.

Conclusions and Recommendations

The district should provide personnel whose sole responsibility is to prepare and report on federal and state proposals. A certificated person is desirable, but not absolutely necessary for the over-all responsibilities; a clerk or secretary is needed to handle all of the reporting forms, typing of proposals and projects, and transmittals. It is imperative that the person selected be a good writer, have a general background, be knowledgeable concerning as many sources of financial assistance as possible, and has a working knowledge of the laws pertaining to vocational programs.

It is recommended that the job description and duties of the current Project Specialist be re-evaluated to eliminate many of the clerical duties, and allow more time for proposal and report writing and research.

Sources of Information

Based upon their own experience in employment of a specialist assigned to handle project proposals, the following school districts may be useful sources of guidance to the District: Orange Coast Junior College District; Fullerton Union High School District; Laguna Beach Unified;

Newport Mesa Unified; Long Beach Unified; Compton Union High School District; Grossmont Union High School District; Santa Monica City College; Santa Maria Junior College; Norwalk La Mirada Unified; Torrance Unified; Montebello Unified; and El Monte Union High School District.

ADMINISTRATION OF SPECIAL PROGRAMS THAT FAIL TO CONFORM TO THE TRADITIONAL COLLEGE CALENDAR

The value of special programs in technical education has been considered by the American Council on Education and in the *Report of the Panel of Consultants on Vocational Education*. These programs both prepare the student for immediate entry level employment and provide continuing education for work. This is a timely problem, for unless the community college can implement these programs, area or technical schools will develop to fill the need.

This trend would be contrary to the recommendations of authorities at the national level. Grant Venn, in *Mass Education and Work*, states: "It would be tragic if the newer technical education programs are structured outside the educational mainstream so that able and ambitious individuals cannot receive credit for knowledge acquired in occupational programs as in other degree programs." Further, Mr. Venn in the 1967 *Samuel Fick Lecture* posed the question of whether education for work will be included in the present school system or whether we are going to establish a second school system to accommodate this field of education. He finds that one system of education is preferable.

The special education programs are most advantageously placed in the community college because of the status of the post-high school institution. In *Education For a Changing World of Work* the statement is made, "The prestige of the post-high school institution facilitates the enrollment of persons who do not want to go back to high school for their further education." For instance, the recent Federal legislation for retraining adults to reduce unemployment generally is more readily implemented in institutions beyond the high school.

Unit Evaluation System

The traditional approaches to calendar, credit and grading practices, however, pose real barriers to special programs. If flexibility is to be the byword of the junior college vocational technical program, these traditional approaches must be examined critically to determine their validity. This is not a plea to violate the integrity of credit or grading practices, but rather an appeal to consider the spirit, if not the letter, of the system. It is realized that this may not be completely possible, especially in instances when state regulations and financing are involved.

The Master Plan for Higher Education in California establishes criteria and standards for transfer-type credit courses offered in junior colleges. Non-credit, non-transfer courses were not considered. Aside from tradition, there is nothing sacred about 18-week semesters, three 50-minute periods per week, or A's, B's, C's, D's and F's. Accrediting committees may disagree, but, as academicians, accrediting team members seldom give more than passing attention to vocational programs. If the program produces outstanding graduates (as measured by subsequent success) then who, even an accrediting team, can say it is wrong?

For courses leading to certificates of completion, unit evaluation is not required and a simple pass-fail grading system will suffice. Insofar as departure from the traditional college calendar goes, consider the power sewing program at El Camino College, where enrollment may occur at any time in the school year and completion may occur at any time.

Accommodating such deviations from schedule may be a tough problem. It must be first determined that the courses so offered are not necessarily to be for transfer credit. Once this is determined, a number of options are available. The course still must be adapted to fit into the A.A. program, however, if it is to be part of a two-year course.

One method of granting credits for the short or special course would be to so arrange the mechanics of registration that the student could register for a portion of an entire curriculum, even though it be for less than a semester. When the student had completed the segment, evaluation by written and technical competency tests could be administered by the instructor and unit credit given on this basis. If the subject matter required a specific number of laboratory hours, a time clock system could be utilized to record and verify time spent by the individual student, in order to grant units or credits.

In consideration of recent recommendations and the preoccupation of Americans with a college(academic)education, it seems wise to stress the unit approach for occupational education even in the special or short course.

Facilities

Facilities for special programs could assume many forms. A certain number of sections or stations of the laboratory could be reserved for students who wished to practice on irregular schedules, motivated by either interest or need to prepare for job entry level.

Laboratories could be constructed with sufficient flexibility for use for structured and unstructured laboratory hours, depending upon the student requirements at any given time. This could be effected by providing moveable walls and/or shifting of equipment to meet special needs for shop or lab facilities. The system utilized in nursing might well extend into other fields. The qualified, experienced instructor could take a group of students into the operating industry. With the cooperation of the workers, supervisors, and instructors, the student could assume work responsibilities which simulate actual work as a laboratory experience.

Another approach might be to schedule laboratory sessions in industry at times when equipment is not normally in use. The team teaching approach might be used; an instructor from the college and a member from the industry could supervise the student in the use of equipment. An example might be the use of such heavy equipment as a bulldozer, skip loader or crane on a construction site on a Saturday, or from 5:00 p.m. to 7:00 p.m. in the spring while daylight hours might be utilized.

It is well to remember that the human learning process does not commence at 9:00 a.m. sharp every Monday, Wednesday, and Friday, and cease to function after 4:00 p.m. Why not open labs with minimum supervision where the student can practice or try out what he has learned at times other than 2:00 to 5:00 on Tuesday? In other words, it should be possible to use the imagination in developing practical experience sessions for trade and technical students, and at the same time give the "keepers of the records" the security of time-clock record keeping, credit by examination, or other devices that can effectively bridge traditional and innovative scheduling.

Sources of Information

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PROVIDING FOR SPECIAL PROGRAMS IN VOCATIONAL EDUCATION (DISADVANTAGED, MDTA, DROPOUT, ETC.)

The Problem

Is it a district or a campus function to provide for special programs, i.e., disadvantaged, MDTA, dropout, etc., in an ongoing junior college program?

Discussion

Providing for special programs such as those for the disadvantaged, dropouts, and MDTA, is not likely to create much of a jurisdictional problem within the district unless these proposals are viewed as either highly desirable or highly undesirable. If the former is true, district policy must provide means and procedures for allocating the task; in the latter case, the district must be ready to provide the leadership and inducement necessary to get the most appropriate campus to undertake the program's development. If all portions of the total junior college structure are sympathetic to the needs for and purposes of these programs, then the task becomes one of simply coordinating, cooperating, and assisting so as to maximize the effectiveness of the energies and dollars expended.

Before considering a response to the basic question, however, one must be aware of the implied questions inherent in it. It seems to be asking, among other things: (1) Who really is aware of or determines district needs and evaluates the college's effort toward meeting them? (2) What is the junior college's relationship to other community agencies that may also contribute to meeting these community needs, e.g., Adult Education or On-The-Job-Training? (3) Within which portion of the total structure does the "conscience" reside? (4) What contributes to the reluctance of the district or of any given campus to undertake some of these projects? (5) If a campus is reluctant, what inducements might the district offer to it? (6) If the district is reluctant, what avenue is open to a sincerely motivated and ambitious campus? Answers to these questions must be drafted before a considered response to the initial query, "district or campus function," can be given.

Considerations

Final decision on this matter must be consistent with the basic organizational philosophy, whether that be multi-campus or multi-college. Jensen defines a multi-campus organization as, "operating one legal institution with a strong central office and each campus or branch being a division of a single college," and a multi-college as one where the district provides "maximum autonomy for each individual college." In the districts included in his study, he report "a trend toward the multi-college plan."

On the other hand, Masiko suggests that different organizational patterns may be needed at various stages of growth. He raises the further question of whether it is the "organizational structure or the personnel on hand that determines what will work best in a given situation." This adds personnel as another dimension to be considered in defining the basic organizational philosophy.

The problem under discussion, providing for special programs, is essentially a matter of curriculum. This is a matter in which the district organization does get deeply involved. Jensen reports that in all the multi-campus junior colleges he studied, "the policies and procedures for the formation of curriculum objectives are set by the district." At the same time it must be recognized that the decisions themselves are not made solely at the district level and then dictated to the various divisions of the district. No program, be it MDTA or other, is likely to meet with much favor, much attention, and therefore much success if it is imposed upon a campus by a district-level decision. The responsible involvement of faculty and administrators from the individual campuses must be sought. Jensen found this being done in all the junior colleges he studied by means of "having faculty members serve on both individual campus and district-wide instructional committees."

What, then, is the district-level officer's role in matters of this sort? While he is ultimately responsible for these programs, his role is not one of direct control but rather of leadership, assistance, and subtle influence. To be sure, it is a multi-faceted role.

He must be an initiator, being willing to propose new things for consideration. He must be at least one source of the district conscience, prodding and agitating for "just causes." He must be a reservoir of information on the details of organizing, establishing and conducting these programs, being especially aware of the intricacies of government regulations. His office and staff should provide the necessary assistance during the drafting of proposals as well as in reporting them. Experienced hands at these tasks prove more accurate and efficient. They also are sources of encouragement and reassurance. The district-level officer must be a representative of the district in its relations with such community agencies as Office of Economic Opportunity projects. Adult Education programs, and the On-the-Job Training programs of the Department of Labor. The junior college must not assume that it has the sole responsibility for a community's efforts in these areas, but rather must be in effective communication with others responsible for it in such community efforts.

A further and major role of the district-level officer is that of "ombudsman" for his campus divisions. He must be intimately aware of the problems that these programs create and must work constantly to alleviate them. For example, great flexibility often is demanded by special programs. They make unusual demands on scheduling, facilities, and routine policies and procedures. The district-level officer must be the spokesman for changes within the institution and the legislative advocate for change at the state or federal level.

To overcome the reluctance of a given campus to undertake needed and desirable programs, the district may, taking a clue from the federal government, wish to attach special budgetary considerations to such programs. In addition, it may want to offer special dispensation from standards affecting teacher load, class size, or other similar policies during the developmental stages of the program.

Recommendations

Programs of this nature should be considered a district responsibility but a campus function. The ultimate responsibility for their adoption and success must rest with the district. The task of conducting them must be performed by individuals attached to a campus.

Significant authority must be delegated to faculty and campus administrators in the decisions to undertake, modify, or continue such progams. Their participation in this must be actively encouraged.

Considerable assistance with the paper-work should be provided by the district office.

The district office must be the repository of all pertinent information and regulations concerning these programs. The "authority" on such matters, therefore, should be readily available when questions arise.

Probably the greatest contribution can be made by the district office if it serves as a catalyst or a facilitator of such programs. Opportunity and need for real leadership rather than mere "commandership" is apt to be great when dealing with programs of this nature.

Time should be allocated for the district officer to function as a local spokesman to state and national organizations which are involved in designing and revising legislation and administrative regulations for special programs such as these. Local districts should accept as a part of their responsibility the task of promoting "grass roots" involvement in state and federal planning.

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COORDINATION AND ARTICULATION OF HIGH SCHOOL OCCUPATIONAL PROGRAMS

The Problem

How can the North Orange County Junior College District coordinate the high school occupational preparation programs with the junior college vocational programs to insure advance placement and continuity between the two curriculums?

At the present time very little is being done to accommodate the high school student who wishes to enter the world of work and whose interest has been stimulated by a good occupational preparation program in the high school.

Although one may find a great variation among the high school programs within the junior college district, this fact alone does not abrogate the responsibility of the junior college district to establish a functional, meaningful articulation and enrichment program.

We must not loose sight of the fact that the sole objective of articulation between the high school and the junior college is to provide the student with an orderly and systematically interrelated curriculum. The reason for establishing and maintaining an articulation program is to provide a more effective service to the student so that he will be able to attain his occupational goal effectively and in the shortest possible time. Our industrial technology is moving so swiftly that we can no longer afford to waste our human resources by delaying the educational process.

To require capable students, through lack of coordination, to repeat course work involving basic occupational knowledge and skills already learned is certainly a waste of effort for the student as well as for the school from which he transferred.

Discussion

The responsibility for the establishment of an effective articulation program lies with the junior college, by the nature of its overall educational responsibility to the local community. The junior college must consider the establishment of a meaningful and functional two-fold articulation program providing for advance placement as well as enrichment.

The demand is becoming more urgent for providing the youth of the community with an adequate background in occupational preparation. Surveys and statistics show, however, that fewer students are being adequately prepared to enter the world of work or to cope with the curricula of the trade and technology divisions of our junior colleges.

The junior college first-year dropout rate is alarming. Employers are interested in recruiting young people who have had some type of formal occupational preparation. Industry wants workers of all ages who have had some form of occupational training or work experience. There are fewer job opportunities for the unskilled employee today than at any other time in the history of our industrial world, and the few remaining jobs in this category are fast disappearing. There will always be a certain proportion of unskilled people in our work force, but it is the responsibility of educators to insure that this group is kept to a minimum.

The Occupational Preparation Program should be designed to provide opportunities for high school students to receive training which has as its primary goal the development of occupational skills and understanding, to the degree of competency that will qualify the student either to enter industry at an entry level position, or to go on into the junior college trade and technical program. As conceived, the existing program is ideal for developing an articulated curriculum of instruction from the high school through the junior college.

An articulation program would allow for matriculation of the student from the high school to and through the junior college. The objectives of the articulated program would be:

1. The student would have a base upon which he could build his occupational goal.
2. The comprehensive high school would provide the student with a good academic background to supplement his occupational goal.
3. The student would have adequate occupational preparation and gain occupational skills sufficient for entry level jobs any time after the twelfth grade.
4. The student would have an adequate basis of occupational preparation to enable the junior college to enhance his proficiency and skills for entry level employment.
5. The occupational preparation student would have his educational disciplines (math, English, and science) coordinated with the needs of his vocational goals.
6. The vocational curriculum at the junior college would be so designed as to provide the student with "spin off" stages for employment. These "spin off" stages would permit the student to become a "hire out" when he feels that he is ready for the world of work.
7. An articulation program would be enhanced by an enrichment program which would act as a "recruiting agent" for the vocational program at the junior college.

To insure against the possibility that the program will be too rigid to accommodate itself to the changing needs of the world of work, there should be built-in safeguards. To provide for flexibility, the program should allow any student to participate who has the interest, desire and ability. Because the success of the student is the all-important goal of the program, it should be designed in such a way that all mediums of educational experience are used to instruct the student. A method should be devised for measuring what the student has learned and how effective the instruction has been to insure that the program will continue to prepare the student to meet the demands of the world of work.

The Enrichment Program

In the enrichment program, it is proposed that selected twelfth grade students be given the opportunity to enroll in appropriate classes when student vacancies exist in the junior college. These high school seniors would attend required classes at their local high school during part of the school day and continue their studies during the balance of the day at the college.

This enrichment program is needed to provide educational opportunities for specific categories of students:

1. Twelfth grade students in the local "feeder" high schools who have completed the courses offered in their fields of interest by the end of the eleventh grade.
2. Twelfth grade students in local high schools who have interests in fields for which there are no classes offered at the high school.

The advantages of this program would be as follows:

1. It will provide students with the opportunity to pursue their educational interests in an efficient and organized manner.
2. It will provide for greater utilization of the junior college facilities and services.
3. Students engaged in this program would be very likely to continue their studies after high school graduation.
4. Those students who desire or find it necessary to find full-time employment upon high school graduation will be better prepared for their vocation, as they would have had the opportunity to attend an advance curriculum offering.
5. The high school students attending a junior college class would link the students, teachers, counselors, administrators, and citizens of both institutions for stimulating first-hand communication between the two groups.

Student Selection

It is proposed that the student participating in this program meet the following conditions prior to enrollment in junior college classes:

1. He should have completed all classes offered at the high school in his chosen field of study.
2. He should have demonstrated the ability necessary to complete the junior college class he wishes to attend.
3. He should have obtained the recommendations of his high school teachers, counselor, principal, and board of education to attend the class.

Recommendations and Conclusions

1. A carefully articulated program should be developed between the junior college and the feeder high school within the junior college district.
2. The articulation program must be broad in nature and encompass vocational course offerings across the board.
3. An articulation program must have service to the student as its purpose.
4. The overall occupational education curriculum from high school through the junior college should be designed in such a way as to provide junior college automatic matriculation.
5. The advanced junior college equipment, facilities and instruction should be made available to any qualified high school student seeking advanced placement.
6. Both the junior college and the feeder high schools should develop and enlist the assistance of a vocational articulation committee to insure proper development of the articulation and enrichment program.
7. An advanced placement program will act as a "recruiting agent" for the junior college.

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III. BUILDINGS AND FACILITIES

POLICIES

The Problem

The question under consideration is how to provide policy to alleviate problems arising from duplication of vocational programs and facilities, and to develop criteria for establishing new programs in a multi-campus district.

Discussion

Historically and traditionally, the junior college serves the immediate community. The school draws primarily from the students living quite close to the campus, and there is proportionally less "draw" as the distance lengthens. The predicted growth in new communities prompts the selection of new sites for junior colleges. The drawing together of these population areas into multi-campus districts appears to be the best solution for the standardization of policy and ease of administration.

This concept of large area and multi-campus rule by a central district should not attempt to change the tradition of local community service. Consequently, no matter where the junior college is located, it will continue to attract students from and provide service to the locality which immediately surrounds the campus. If this policy is valid, then it would be safe to assume that any attempt to maintain strict non-duplication of programs between schools would border on discrimination. On the other hand, complete disregard for duplicate programs can be extremely costly to students as well as to taxpayers. The idea of a comprehensive district, rather than comprehensive schools within the district, seems to be more logical.

Recommendations

1. The district should provide initial organization to develop vocational education programs unique to the individual school and community. This could be accomplished by developing lists of appropriate courses and identifying the classes as meeting primary and secondary needs.

   The primary list would include all vocational education courses necessary to adequately conduct designated new programs. The fact that they may duplicate or appear to duplicate established courses on other campuses should not be of prime importance. It may be necessary to add or delete "nice to have" related course material because of its unique nature or cost. These classes should not be stripped-down versions, however, but adequate to produce the graduates needed to fill general employment needs or transfer requirements.

The idea of transferring courses or students between campuses is a consideration here, but it is felt initially, that self-contained curricula for each campus is more advantageous than split programs. The immediate disadvantage of multi-campus commuting by students is the loss of student identification with the campus as well as precedent-setting policy which might force continuation of this type of sharing.

Secondary lists of vocational programs should be developed on the basis of established local community needs. The nature of current as well as future industry should be considered. An example of secondary planning might be the development of programs to fit specific industrial growth patterns of the local community. Schools in direct contact with specialized industries could prepare programs to train or retrain their personnel and prepare students to work in these plants. In the case of new "bedroom" areas not zoned for heavy industry, short-term courses could be provided to prepare service and managerial and other skills necessary to staff new shopping centers or light industry.

Programs for the future of the nation and her products should complete the secondary course considerations. These courses should include programs in electronics, synthetics, metals and plastics. It would be a mistake if they merely augmented or paralleled current programs in other junior colleges. Courses set up in new schools could be designated as semi-research, and at least 50% of any program in the new materials area should be developed around research, design, and development of product potential. The difference between research/design and fabrication techniques might solve the problem of alleviating some costly duplications between campuses. Testing of materials and products is another research area that could be differentiated between campuses.

2. The district should develop a closer cooperative attitude between campuses by providing high schools with information that outlines the current and future advantages of each school in regard to the types of programs they have to offer. This might culminate in the production of a catalog that lists course offerings of both schools. Students, parents and teachers far too often are unaware that multi-campuses are coordinated by a central district, and fail to consider total district resources in arriving at enrollment decisions.

3. The district should develop a program using commuting vocational teachers who will offer similiar courses on each campus. While

this idea would be temporary, and does not eliminate the cost of duplicate equipment, it does eliminate the hiring of part-time instructors or the complete abandonment of programs and related courses.

4. The district should be responsible for preparing a study of established school offerings to determine which might be in need of revision or revitalization, and if such appear, decisions should be made possibly to transfer these programs to the new school thus giving them new life, or perhaps they could be strengthened by upgrading of information and techniques.

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STANDARDIZATION

The Problem

Can provisions be made for the standardization of equipment and instructional supply cost in a multi-campus district?

Discussion

The issue of standardization is basic to the important concept of campus autonomy. Any resolution of the problem will hinge upon whether the district operates a multi-campus or a multi-college district. If it is multi-college, the district establishes its criteria for dividing the funds among the colleges, and from that point the schools are given autonomy in terms of how to spend the funds. If it is a multi-campus district, there is less autonomy granted to each campus and the district may, in the interest of efficient use of funds, standardize equipment and instructional supplies, with the expenditure on each campus becomming a function of the enrollment.

Recommendations

Prior to any cost analysis of needs for a particular campus, the current and future programs must be determined. This determination, which is coordinated through the district, also should provide comprehensive lists of any required equipment. Supply and equipment lists should be carefully prepared by each department of vocational education instruction within the division. New programs on new campuses would probably be staffed by one instructor, making this duty of forecasting a very important one. All equipment needs should be placed in some form of priority position, with a minimum projection of five years. As a basis of comparison, established schools also should submit lists of current inventory items. A side value to this inventory would be to provide estimated equipment value in relation to student-hour usage. These statistics might reveal areas which could be used to update courses or revamp programs, and also help to eliminate costly duplication of little-used equipment. Lists of current and proposed course equipment could now be submitted to designated individuals who could make determining comparisons easily. Obvious oversights, inadequacies or duplications could be spotted and corrected immediately, before the budget is submitted to the board.

Arranging for purchasing agents from the separate schools to share the same office is one method of providing a degree of communication between institutions. Using the district directors as a review board might also help reduce problems arising from programs requiring expensive equipment and those calling for little equipment, and certainly would reduce the possibility that separate schools might stockpile unnecessary or superfluous items.

Budgeting for instructional supplies could be handled in much the same manner, except that the experience gained from established schools and programs could be brought into play. If records have been kept and are readily available, it should be easy to establish a "cost per student" ratio for various vocational programs in operation one, five, and ten years. This ratio could include breakdowns of initial equipment costs, instructor/hour cost, operating expenses, cost of supplies for classes of various sizes and for programs of varying length. A study of this magnitude and scope might also provide information as to the feasibility of flexible scheduling, use of teacher aides, use of audio-visual tutorial instruction, lecture/lab ratios, by using cost as well as student learning to evaluate programs.

Once the cost per student and student-hour factor have been established, departments could draw upon this information and other enrollment projections, and establish future budget guidelines. New schools could use this valuable information to justify or delete courses by examining them in the various aspects rather than on the basis of mere title duplication. A secondary use of a study of this type is that programs that currently have small or excessive costs could be further examined to discover reasons and formulate remedies.

Statistics of this nature could be submitted by school boards to various commercial and governmental training programs for review.

Schools with good, inexpensive training programs could, if necessary, then compete with private enterprise in providing training and education. Industry usually is looking for ways of producing less expensive products and certainly would be interested in methods by which the junior colleges could provide vocational training comparable to that currently administered by the individual industrial firms.

ACADEMIC VS. VOCATIONAL PROGRAMS

The Problem

Can provisions be made for developing new campuses in a multi-campus district in relation to comprehensive programs versus specialty campus (liberal arts or vocational)?

Discussion

Philosophically, for the image of both vocational education and the junior college itself, there would be little to justify anything other than a comprehensive program on each campus. Historically, the junior college is a community service program designed and sold under the guise of providing maximum educational facilities for the taxpayer's dollar. The inclusion of vocational education as part of this program is necessary if complete service is to continue.

The extent to which vocational education can be developed when a new campus first opens is dependent upon the initial enrollment on that campus and the extent to which physical facilities have been provided for trade and technical programs. If a new campus is not opened until enrollment projections warrant it, and if it grows rapidly during the first few years of operation, the assumption is that vocational offerings can be included without disproportionate expense. Unless there is an extreme community variation among the sites of the campuses, permitting one campus to develop without the proper emphasis upon a balanced program is a real disservice to the junior college movement and invites serious misconceptions on the part of the public and perhaps even of the faculty.

Recommendations

The problem of comprehensive programs is one of initial concern to emerging multi-campus districts and consequently program policy should be established prior to any building construction. In the case of the North Orange County Junior College District, the current policy dictates against establishing specialty campuses. In this case, it becomes compulsory that the schools comply.

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MAINTAINING MAXIMUM USE OF VOCATIONAL FACILITIES UNDER THE PROPOSED QUARTER SYSTEM

Discussion

A review of recent trends in California higher education suggests the probability that eventually all segments of higher public education in the state will switch to a year-round operation consisting of four academic terms of equal length. Upon the recommendation of the Coordinating Council for Higher Education and as a result of resolutions adopted by the Regents of the University of California and the Trustees of the California State Colleges, conversion schedules have been drawn up which call for all branches of the University of California to be on the year-round quarter system by the 1973-74 academic year and for all of the California State Colleges to be on the system by 1974-75. In addition, Part 8 of the resolution adopted by the Coordinating Council for Higher Education on January 28, 1964 recommends that "each Junior College governing board appraise the recommendation's impact upon the transfer of its students, articulation with other segments of education, and other related matters; and on that basis determine the advisability of conversion to a four-quarter calendar."

Unfortunately, an analysis of the effects of four-quarter year-round operation in the University and State Colleges upon such matters as summer quarter enrollment, curricular offerings during other quarters, faculty attitudes, rights, and benefits, physical plant mainenance, and administrative, student personnel, and library operations, as well as physical plant utilization, will have to await the accumulation of considerable data. It appears that the pressures on the various junior college governing boards may force decisions with respect to the four-quarter year-round operation prior to completion of any such analysis. Lacking such empirical data upon which a decision might be based, reliance must be placed upon a consideration of all available factors.

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It is apparent that the Coordinating Council for Higher Education, the Regents of the University of California, and the Trustees of the California State Colleges all shared the opinion that the four-quarter year-round operation would increase facility utilization, since this was stated as their first and foremost reason for adopting the system.

Though courses in the specialized technical areas, particularly those leading to certificates of completion, sometimes are not equated to the school term, there is reason to believe that where technical courses are geared to the academic calendar, the quarter system (which permits greater fragmentation of highly complex instructional sequences) is more suitable than the 18-week semester. The 10-week term also should provide greater flexibility for those technical students who desire to carry a general education course concurrently with their technical studies, since the general education courses also would be of short duration.

It further is theorized that student mortality from the beginning of a term to the end would decrease with the shorter term, since course objectives could be more uniformly visible and more quickly reached.

The real case for greater facility utilization through the four-quarter year-round system, however, rests on the assumption that in the face of growing enrollments the college, by making it possible for highly motivated students to complete the requirements for the AA degree in one and one-half rather than two years and for technical students to attend continuously pending completion of their training programs, can spread the attendance of a given enrollment load over a period of twelve rather than ten months, thereby reducing the necessity for additional facilities. This in turn rests on the assumption that given full and equal summer terms, a significant percentage of the student group will take advantage of the opportunity to accelerate their training or will select the summer term in preference to one of the other terms in the academic year. Educational statistics do indicate a significant increase in summer enrollment at all levels of the educational system. It must be pointed out, however, that no data yet exist to support the assumption that a summer quarter will significantly outdraw the existing summer sessions.

In view of the foregoing, it is the opinion of this group that if there is a switch to the four-quarter year-round system, most indications point toward increased facility utilization in the technical areas as well as in the other instructional areas. It is the recommendation of this group, therefore, that the Governing Board of the North Orange County Junior College District proceed with a serious consideration of the other factors involved, with the possible objective of adopting this system for both regular and extended day programs.

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IV. PERSONNEL

STAFF RECRUITMENT

Discussion and Recommendations

The identification and employment of a qualified technical education teaching staff to be used at the junior college level usually ranks high among the concerns of any administrator involved. Our problem is largely one of finding, selecting, and utilizing the best ideas and techniques for identifying and employing a qualified technical education staff. We will confine ourselves mainly to the where and how of finding teachers.

The following suggestions and techniques for teacher identification and employment were submitted by one or more members of the seminar as being usable. Some of these items may warrant further comment while others are largely self-explanatory.

1. The North Orange County Junior College District salary schedule should be maintained on or above a competitive basis.
2. The district can now hire trade and technical teachers at the ninth step. If possible, this hire-in level should be raised until the district has no difficulty in obtaining the caliber of teachers it desires to employ.

The district should establish and maintain a comprehensive teacher recruitment program in order that potential teachers may be identified and needed teachers recruited. Listed below are some of the techniques which could be used in implementing such a program. The administrator should:

1. Make lists of potential staff members; keep lists current, and follow up on leads.
2. When needed, seek help from the district's advisory committees.
3. Along with his staff, attend technical and professional level conventions and meetings.
4. Work with the unions.
5. Work with the various service clubs.
6. Consult the members of his own staff.
7. Establish contact with teachers in private trade schools where the benefits and pay may not be as good as at most junior colleges.
8. Consult the California State Board of Vocational Education, California Vocational Association, and the American Vocational Association. Keep in close contact with such agencies as the UCLA Division of Trade and Technical Teacher Education.

9. Contact teachers in the junior college field who have indicated a desire to change locations.
10. Convert to trade and technical assignments those industrial arts teachers who have the necessary industrial-technical background.
11. Keep in close contact with industry; borrow part-time help if necessary; have industry make potential teacher recommendations when needed.
12. Whenever feasible, hire part-time teachers from industry for extended day or night school.
13. Employ qualified high school instructors.
14. Consider the possibility of placing industrially qualified technical specialists in a teaching aide role with a qualified credentialed teacher, both as a help to the teacher and as a possible means of getting such persons interested in teaching careers.
15. Search the technical-vocational education graduate-level programs for teachers with the proper work experience background.
16. Try to interest outstanding students in a teaching career if they have the necessary prior practical experience.
17. Utilize out-of-state recruitment.
18. Consult and maintain contact with professional teacher recruiting organizations.

The following steps were taken by Foothill Junior College in its staffing efforts. Some of these points, or perhaps all of them, are applicable to technical education staff recruiting.

1. The faculty committee was very anxious to have a division chairman for each of the major areas (nine in all). During the initial two years, division chairmen would, where possible, be selected by the administration from within the respective divisions. All members of a division wishing to apply for the chairmanship would be permitted to do so. The division chairmen would teach approximately half-time in order to have time for such administrative duties as employing and evaluating staff.
2. The college established, maintained, and publicized a strict evaluation policy for all faculty members.
3. A strong favorable public image should be developed in order to stimulate an instructors desire to join the staff at Foothill. Foothill College conducted a public information program on a national scale in order to develop a list of applicants from all over the United States from which to select faculty members.
4. An intensive recruitment program was planned. This year four administrative trips were made - one as far east as Boston and three to the Northwest - to interview candidates who had applied. Faculty members were asked to suggest friends who qualified as

outstanding teachers. It was felt that before a person was hired written recommendations that could be evaluated should be obtained from people who knew him. Where possible, three administrators on the Foothill staff - division chairman concerned, dean of instruction, and president - would interview each applicant.

5. An attractive and competitive salary schedule was established.
6. Provision was made for individual faculty offices.
7. Secretarial and other personnel was made available to relieve faculty members of routine duties.
8. The teaching load would be light enough to permit the instructors to do the best job possible in the classroom.
9. Sufficient funds would be budgeted to enable faculty members to attend professional conferences. (It was found that faculty members were very much gratified by this professional recognition.)
10. A faculty house or lounge would be available. (Foothill has a fine old house on the campus with a swimming pool for the use of the faculty.)
11. Members of the staff would be promoted to administrative positions whenever possible.
12. An annual three-day meeting of the total Foothill staff, administration, and board was held at the Asilomar Conference Area to discuss topics planned by a faculty-administration committee. This would provide avenues of communication between faculty and administration. Such communication would be furthered by the weekly meeting of the president's cabinet, comprising all administrators, and the president and vice-president of the faculty association. The faculty is kept advised on all policies formulated at cabinet meetings. Faculty association representatives also attend all board meetings where policies are reviewed. The faculty has asked that it also be involved in the appointing of all committees.

It is interesting to note that from their respective staffing lists, Mr. Calvin C. Flint, president of Foothill Junior College, and the Education 261-E class were in accord on at least three items. The fact that a good salary schedule, intensive recruiting, and the attendance of staff at professional meetings and conventions were considered desirable may attest to the importance of these items. In his final remarks about staffing, Mr. Flint said: "We are sure of one thing, the emphasis on staffing policies has paid strong dividends. We now have a list of several thousand applicants, and we are now able to screen from this list those individuals who will be outstanding faculty members. ...Good staffing pays off in good education."

In addition to the points on staffing which have already been listed, it would seem that there may be other items to be considered. Wattenbarger makes a critical point when he insists that the staff selected be able to implement the basic purposes of the junior college. "This guideline has important implications for background, education, and experience qualifications."

John Beaumont, director of vocational and technical education for the State of Illinois, also feels that a teaching philosophy which emphasizes the basic concepts and purposes of vocational education is necessary if the teacher is to be a strong vocational teacher and help the student in the way a student should be helped.

Dr. Dwight W. Allen, associate professor of education at Stanford University, thinks that the role and type of technical education teacher may be challenged in the near future. For example, the teacher may be a member of a differentiated staff. In such a case, he might be a curriculum development or evaluation specialist, and might serve two or three technical education areas in that capacity. He might also have a technician under him teaching the students up-to-date specific skills.

The teacher could be a member of a different sort of team and serve as a member of a team teaching group, or serve as a coordinator for greatly increased on-site instruction.

There may be big changes in the manner in which technical teachers are trained with such new techniques as micro-teaching coming into view. How does all this affect teacher recruiting? Obviously, such changes would be reflected in the type of teachers recruited.

In summary, we could say that the points mentioned on the staffing lists, and finding teachers who have a philosophy which understands and accepts the unique function of a junior college, would give aid in selecting new technical teaching personnel for a junior college.

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TEACHING LOAD

The Problem

The multi-campus junior college district faces the problem of respecting campus autonomies while at the same time maintaining equitable employment practices for all of its instructional personnel. This problem is especially evident in teaching load. In such a situation, confusion often results between what is policy and what is procedure. An equitable policy certainly is called for. Implementation of policy may be left to the separate campuses, provided that all are aware that differences between similar jobs on separate campuses tend to cause unrest until leveling occurs, almost invariably in the direction of smaller work load. Even then, work loads vary considerably within a single campus, especially in a comprehensive campus. Differing divisional work loads do not achieve equity among teachers if such work loads are measured in terms of "credit hours", "contact hours", or "one-fifth-load-per course". Such formulas simply do not recognize the differing amounts of energy expended outside of the classroom as a result of course differences, not merely interdepartmental differences. Similarly, no rigid ratio, whatever it may be, can be applied to reduce or correct all laboratory schedules to a lecture basis, even within a department.

Discussion

The district has a right to expect a fair measure of work from each of its certificated employees, regardless of place of employment, or of specialty. The certificated employee, on the other hand, has a right to expect that his work load will be reasonable and not inequitably larger than that of colleagues within the district. Teaching different courses demands differing expenditures of effort, energy, and time. But effort is an intangible thing, difficult or impossible to measure. Energy, too, is difficult to measure, especially where mental exertion is involved. But time CAN be measured.

"Work load is intended to approximate 40 hours per week," reads the second sentence of the fifth paragraph of the comments included on the reverse side of North Orange County Junior College District's published salary schedule dated July 1, 1967. This is a reasonable starting point for developing a teaching load policy which makes reasonable demands upon the energies of the teaching faculties, taking into account all those activities which demand a teacher's time as a result of his employment. Recognition should be given to all aspects of his job: preparations, classes, paper-grading, committee assignments, student consultation, club sponsorship, assistance available to him, and other factors. It is extremely important to recognize that different courses make different demands on the teacher in terms of amount of preparation required and time devoted to grading papers. Class size has an important bearing. A detailed discussion of all of these implications is covered in the section which follows - "A Consideration of Teaching Load in American Junior Colleges."

Recommendations

It is recommended that policy be adopted which assigns all full-time teaching faculty members an equitable teaching load based on 40 hours per week spent in job-related activites, the 40 hours to include not only time spent in class, but also time allotted to such out-of-class activities as preparation, paper-grading, committee work, student activities and consultation, and other cogent assignments. (This does not imply that the teacher will be required necessarily to spend 40 hours per week on campus. Assignments in excess of 40 hours (sometimes required because of heavy enrollments) should be offset in part by clerical assistance to relieve the teacher of certain routine duties. Such a policy would be concerned with how a teacher's time is actually spent in job-related activities, thus alleviating the need for a laboratory-to-lecture conversion factor or ratio. Overload should be avoided, but when unavoidable, provision should be made for suitable compensation.

A CONSIDERATION OF TEACHING LOAD IN AMERICAN JUNIOR COLLEGES

The Problem

The problem of measuring teaching load has attracted much attention in American education for several reasons. Among the objectives of such measurement are:

1. To apprise the board members and interested laymen of the amount of work teachers are doing.
2. To secure a more just distribution of teaching load.
3. To help administrators know just how much (or how little) they are demanding of teachers.
4. To protect teachers from unfair demands on their time.

5. To protect new teachers from unduly heavy loads.

The studies of teaching load conducted in the last 50 years center about three main topics: (1) development of formulas for measurement of teaching load; (2) studies of the various amounts of time the different departmental assignments demand of a teacher, sometimes incorporated into a formula; and (3) studies of the actual amount of time required of a teacher by his job.

Of the many formulas developed, none seems capable of meeting all of the five objectives named above. Formula-derived measurements expressed in "points" or "load factors" may achieve equalization of teaching load in part, but do little to inform either the teacher or the public of the actual amount of work he is performing and thus may fail to protect teachers as a group from unfair demands on their time.

"Subject coefficients" have been developed which allow for the various amounts of time and energy differentially demanded by the differing requirements of different departments. If we accept the premise derived by Douglass, that band and German are equal in their demands, which are only 90% of the demands of biology and chemistry, then must we assume that such intradepartmental course demands as Biology 1A and Biology 2A, or Chemistry 1A, Chemistry 2A and Chemistry 8, are equal? The English composition instructor who must read close to one hundred weekly themes or essays probably would be glad to trade his work load for that of the literature instructor in the same department.

Studies of the actual time demands placed on teachers by their jobs not only hold the most promise in revealing equality or lack of equality among the work loads of teachers, but they also furnish a basis of comparison between the average work weeks of teachers and those of non-educators. Unfortunately, the long time gaps between comparable studies reported in the literature, and lack of consistancy in measurement among the reported studies, render them virtually useless for establishing trends. It is noted, however, that all reported work-weeks for teachers of all levels above elementary were, without exception, well above the average weekly hours of retail trade workers as reported by the U. S. Department of Labor.

It remains for someone to develop a teaching load measurement formula which not only incorporates course differences and measures work load in terms of actual hours demanded by the job, but also takes into account the other factors which contribute to teaching load, including class size, number of different preparations required, extracurricular duties performed, and assistance available. To develop such a formula is the purpose of this paper.

Historically, junior colleges have ignored formulas, probably because most of them were developed for high school use. Not being research-oriented and thus failing to find a suitable model to emulate at the university or four-year college level, junior colleges resorted to development of their own measuring parameters. Originally, the full-student load of 15 credit hours was considered to constitute a full-faculty load as well. As it became obvious that credit hours gave no realistic measure of the teacher time and energies required, contact hours gradually assumed prominence as a measuring device.

Controversy raged during both these phases, principally between the teachers of science and the higher echelons; it focused on the load credit to be given to laboratory work. This seldom has been a problem at the university level, where teaching assistants conduct the labs. Unfortunately, credential requirements in most states rule this out at the junior college level. Boards and administrators traditionally have considered laboratory periods as classes requiring little preparation and energy, and therefore have granted the science teachers only fractional credit for an hour spent in lab, compared to an hour spent lecturing. The American Chemical Society went on record as long ago as 1932 as supporting the equality of lecture time and laboratory time for load-measuring purposes. Yet teachers of science still find themselves working many additional hours for fractional pay. The load-measuring method presented here seeks to correct this inequity.

The emergence of the contact hour as an accepted method of measuring teaching load gave some recognition to the differing demands of different departments. This was essentially intended to exploit the time of those teachers of courses requiring laboratory, which purportedly require less teacher energy. This led to two general types of policy statements. Typical of one is that full-time teaching load shall consist of 15± 1 hours lecture, or 20± 1 hours laboratory. Typical of the other is, "The teaching load for a full-time faculty member at Orange Coast College is built around a fifteen hour per week classroom assignment". The second type usually is followed by explanation of the rationale for assigning teachers to more than 15 hours of classroom duty per week; for example, that 1.5 hours of laboratory is equivalent to 1 hour of lecture.

It is interesting that both these policy statements focus on 15 lecture-type classroom hours as constituting a full load. The time-honored ratio of one credit hour for one classroom hour per week has relevance here in light of the statement in the State of California's 1965 Education Code: "One credit hour of junior college work is approximately three hours of recitation, study, or laboratory work per week." Note that no mention is made as to whether this statement applies to teachers or students. Therefore, 15 lecture hours of load may be taken to indicate a 45-hour work week for the teachers involved. Previous studies of time actually spent by teachers in school-related work lend support to this conclusion. The same conclusion is reached if we assume that the teacher spends one hour of preparation and one hour of evaluation outside of class for each hour actually spent in the classroom.

It is difficult to understand why librarians, who are paid the same as the teachers, commensurate with education and experience, are required to work only 35 to 40 hours per week, unless the teachers are donating the extra five to ten hours of work in return for the freedom to come and go as they please outside of class hours and even take their work home with them. That this freedom of mobility is not enjoyed on campuses which mandate the teachers' presence on campus a minimum of five or six hours per school day makes the discrepancy less comprehensible. To require teachers to carry a load equivalent to working 45 hours per week, at a time when work weeks in other professions are decreasing, is another concept whose rationale is difficult to grasp. Possibly John Hicks reached the proper conclusion. He refers to Thorstein Veblen's "conspicuous waste" which is exemplified by the rich indicating their status by ostentatiously doing nothing. He predicts that conceivably, as leisure time increases for blue collar workers, the converse will be true: professors may perform "conspicuous work to indicate their status."

The attempted correlation of measurement between teaching load and 15 credit hours begins to fail as different types of teaching activities are examined. Consider an instructor of physical education as an extreme case: he would have to meet classes 60 hours per week to be credited with 15 units of load. That there is little if any correlation between credit hours and demands upon the teacher has been recognized by most policy makers. A vague correlation is assumed when statements are made to the effect that "when classes decrease in credit-to-hours value, the assumption is that out-of-class time of the instructor also decreases." This accounts for the establishment of the differing ranges of clock-hour teaching load according to the department in which the instructor teachers. No greater detailed distinction, beyond departmentalization, is made for the differing demands of different courses.

Neither of the two types of policy statement clarifies the distinction which could and should be made regarding the percentage of a teacher's load spent in the laboratory and the percentage which is lecture work. Consider the extreme cases. Presumably, only one hour of laboratory per week may transfer a previously all-lecture, 15-hour load insturctor into the lecture-laboratory measurement of teaching load under which he may inherit from two to seven additional hours of classroom assignment (which may be ALL lecture). This instructor would be greatly overloaded. Meanwhile, at the other extreme, the instructor who has 22 hours of 100% laboratory time may be assumed to have relatively little demand placed upon his energies. Since one of the purposes of measuring teaching load is equalization, it would seem logical to take into account the various percentages of time the various teachers actually spend in classroom-related activities. The evident distinction here between lecture and laboratory is only the first step; the time actually spent in preparing for and evaluating various class-related and lab-related activities, regardless of their nature, should be allowed for in measuring teaching load. For example, it probably will take longer for preparation of a one-hour lecture in organic chemistry than to prepare to meet a one-hour physical education class which plays volleyball. Similarly, the chemistry instructor probably will test frequently and will spend more after-class hours grading papers than will the physical education instructor. The conscientious chemistry instructor will be likely to also prepare a brief pre-laboratory lecture, and later must grade the laboratory quiz and/or lab report. Whether the lab is two hours long or three hours long makes little difference in the time and energy the instructor spends outside of class in preparation and evaluation.

It is widely accepted that there is a correlation between class size, work load, and quality of instruction, but in reality this is only an assumption, according to Richard Axt. That quality does indeed decline with a severely overloaded teacher is hardly debatable, especially if the teacher neglects his health rather than fail in his immediate duties to his students. This could result from lack of sleep from late hours spent grading his many papers. (Perhaps the less conscientious teacher would give fewer tests and assign less homework.) The sleepy teacher also fails to stimulate his students, in relection of his lack of vigor and enthusiasm.

Even under supposedly equitable work loads, different teachers will expend differing amounts of energy due to differing teaching habits, efficiency and work-rated characteristics of the individuals involved. The difficulty of measuring these intangibles and the potential work load inequities that would result if they were allowed precludes their use in teaching load determination.

Recommendations

Since existing policies lack the detail adequate for implementing the possible equalization intended by their authors, it is recommended that new policy be written and adopted rather than complicating existing policy with qualifiers and amendments. The new policy should not resemble existing policies too closely, since this could lead to comparisons resulting in confusion between the new and the old policies. Also, if the new method of load measurement were couched in realistic terms of what instructors actually do, partisan groups would have a difficult time protecting deflation of present inflated standards of what constitutes their own teaching loads.

The new method of measurement should attempt to equate the teacher's work week with that in other professions. The 35 to 40-hour work week prevailing in the United States would seem a logical target for the initial policy. As the current trend of work week reduction continues in other occupations, (see figure 1) a consideration of reduction of teachers' work week should be an inevitable outcome. To guarantee a valid comparison between the teachers' work week and that of non-teaching professionals, the unit of measurement of teaching load logically should be clock hours. The semantics of the 35 to 40-hour work week for teachers should not mislead the reader into believing that an increase in teaching load is advocated. Rather, a decrease is advocated from the approximately 45+ hours per week actually spent in school-related activities by many teachers. The semantics of measuring teaching load on the basis of 40 clock-hours per week would do much to mollify uninformed critics who are not aware of outside-of-class duties superimposed on the 15 or so hours per week actually spent in the classroom.

Recognition should be given to the other factors which constitute teaching load as these affect the actual amount of time demanded of the instructor by the school. Selected factors discussed briefly below include: number of preparations, course differences, class size, availability of clerical assistance, the number of student advisees assigned to the instructor, and committee work.

The base to which these factors should apply should be the number of hours actually spent in class, regardless of whether the class is a lecture or laboratory. No distinction is made between 50-minute class periods and one clock hour, since the teacher frequently uses the usual 10 minutes following classes for post-class discussion and consultations with students if he is not traveling to his next class. The shortness of the 10-minute break precludes personal endeavors and thus could hardly be called the teacher's "own time." Multi-hour laboratories usually meet continuously without break, 60-minutes per hour, except that the last hour of the period is only 50 minutes long to allow teachers and students alike to move to their next classes.

1. Number of Preparations

Let us assume that preparation of a lecture, test, and/or other activity to be presented in a one-hour lecture-type class or multi-hour laboratory session requires one hour of preparation. Let us assume further that presentation of the same lecture, test, or activity to a duplicate class or lab session requires little or no additional preparation. Actually, Douglass and others found that original preparations averaged about 0.8 hour and duplicate preparations more than zero but less than 0.8 hour. The flat one-hour allowance per original class serves somewhat as a cushion (and a possible well-deserved reward) for the teacher who is assigned many preparations, but extracts more work from the teacher who previously was responsible for only two or so preparations.

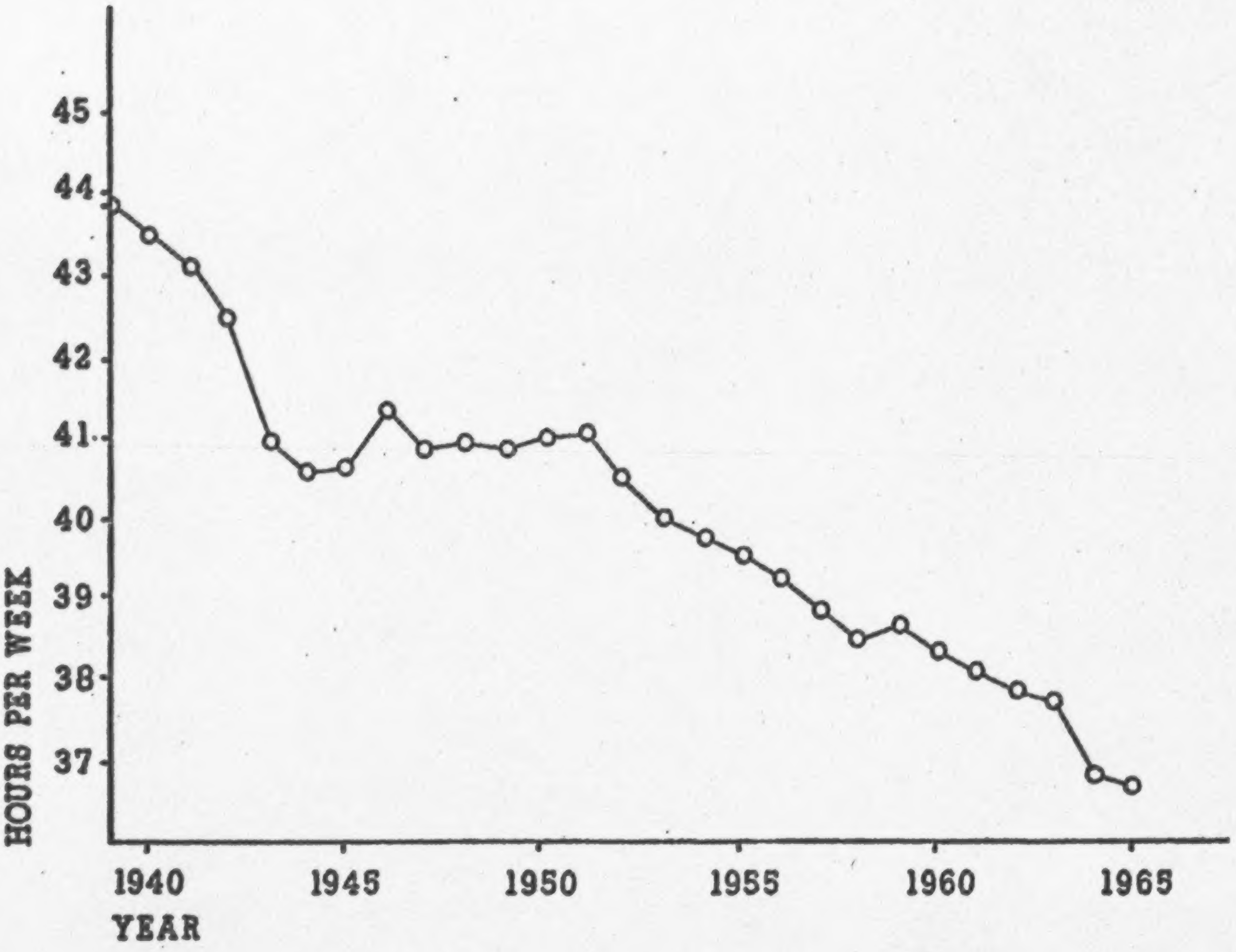

Figure 1 - Average Weekly Hours - Retail Trade Production Workers

Source: U. S. Department of Labor, Employment and Earning Statistics of the United States 1909-65. (Washington: Government Printing Office, 1965), p. 694.

2. Course Differences

A teacher who gives a test every week or so may spend a considerable amount of time grading the papers. Grading of homework assignments may add to his evaluative load. Machine-scored tests, which require virtually no grading time, require additional time for preparation of the multiple choices. Thus, machine scoring of tests would require no correction in the time allocated to evaluation if tests of other types are given. It is in the evaluation area that differences between courses have their greatest effect. The teacher of composition must read many essays carefully, grading content, punctuation, capitalization, and structure, while the physical education teacher may have objective tests to grade only once or twice per term when he tests on rules, etc.

Douglass proposed a set of subject coefficients to be applied to the teacher's overall load, depending upon the department in which the teacher was teaching. Douglass' coefficients are inappropriate here, since it is recommended that the course differences be applied to the evaluative load only. The term "course differences" is used here because differentiation by department fails to allow for the vastly varying demands of courses within a department. A number of hours allowed for evaluation for each course could be developed initially by estimate, and improved through time, because actual practice-dictated revision is needed to make the estimate more realistic. It is not the intent here to allow for individual differences among teachers, but only for differences in course demands. The inefficient teacher still will not have enough time and will feel himself overworked. The efficient teacher will have no complaints if adequate time for evaluative purposes is accurately and fairly assigned.

3. Class Size

For teaching load purposes, it seems immaterial whether a lecture is prepared and presented to a class of 3 or of 300. On the other hand, the evaluation aspect of teaching load is affected appreciably by class size. Ten "extra" students in each of three classes equals the evaluative load of one class of 30. Once a standard class size for each course is established (probably by board action), "extra" students should be allowed for in measuring class load, with the average percentage overage applied to evaluation time only.

4. Clerical Assistance

Districts should seriously consider providing teachers with clerical assistance. Many teachers would welcome an additional class to teach if they could be relieved of an appreciable portion of their routine clerical duties. This would serve two functions: (1) alleviation of the purported teacher shortage by gaining increased output from an already credentialed teacher, and (2) gaining a 20 percent increase in output per teacher per additional class, at the minor cost of a part-time non-certificated clerk.

Where competent clerical assistance is provided, its acceptance should be at the option of the teacher on an hour-for-hour substitution basis up to 50 percent of the teacher's evaluation time for service rendered in grading papers or in such routine duties such as typing and duplicating. If student assistance is provided for clerical purposes at district expense, perhaps substitution of two hours of student time per hour of instructor time, subject to the same limitations, would be appropriate. Presumably these assistants will be used to grade objective tests or routine homework assignments unsuited to machine scoring (short-answer tests, mathematical procedures, etc., where recall rather than recognition is desired); they would not be used to grade items requiring the exercise of judgment, such as essays, themes, term papers, etc., the latter being appropriately graded only by the teacher himself. This device implies no intention to take advantage of the teacher, but merely to use his competencies more efficiently than is now the case and keeping his load within the 35 to 40 clock-hour limit previously established.

5. Student Advising

If 30 minutes are spent per student advisee, 36 student advisees would represent one work hour per week during the 18-week semester. Therefore, a load allowance of one hour per 36 assigned student advisees should be made. Amittedly, the load is not level during the semester, but it should be self-compensating.

6. Committee Work

Members of committees which meet regularly, and faculty senators, should have the appropriate average weekly time expenditure allowed for in computing their 40 clock-hour-per-week work load.

7. Overload

Although the primary purpose of measuring faculty load is equalization, a secondary purpose is elimination of overload where it is recognized to exist. Even in districts where compensatory pay is given for overload, the conscientious teacher who conducts his class sleepily due to late hours spent grading the extra papers resulting from his overload is short-changing his students and is not fulfilling effectively his primary mission to the school. This type of overload is a false economy that no school sincerely dedicated to its students can realistically afford. On the other hand, some teachers' energies and manner of teaching will permit them to handle overloads quite effectively. Rather than deprive them of the opportunity of practicing the art for which they are trained, namely teaching, only to have them accept a second job doing something else for less pay with hours that produce a sleepy teacher anyway, it would be wise to allow them to teach with an overload. Exercise of reasonable judgment and watchfulness will suffice to guide prudence here.

Sometimes, work loads approaching the established level cannot be prepared without inadvertently going over an hour or two. Heavy registration, for example, may have placed more students in the classes than anticipated. How shall the teacher be compensated for his overload after all other considerations (i.e. clerical assistance) have been applied? Since one hour of overload per week for one 18-week semester amounts to 18 hours, and since 18 hours is equivalent to 10.4 percent of the month's work (based on 4 1/3 weeks per month of 40 clock-hours work per week), a single payment at the end of each semester equal to 10.4 percent of the teacher's monthly salary for each hour of overload carried throughout the semester would be fair compensation.

8. Other Considerations

The factors discussed above as they relate to the proposed method border very closely on policies which may or could exist in the areas of:

(1) minimum number of hours required to be spent on campus
(2) scheduling of office hours
(3) substitute pay for intramural substitution

Discussion of the ramifications of the method proposed here in relation to those policies is beyond the intended scope of this paper; it is mentioned to make the reader aware that definite ramifications will exist as a consequence, if the proposed policy is adopted.

Provision has been made in the measurement method to be described for every factor named here that contributes to teaching load.

Recommendations

It is proposed:

1. That teachers be assigned to 35 to 40 clock-hours of teaching load per week, the exact level being established by the board on a district-wide basis.

2. That the teaching load be subdivided into clock hours devoted to:

   a. Preparation
   b. Actual class time
   c. Evaluation
   d. Student advising & Faculty Senate
   e. Committee meetings
   f. Sponsoring student activities
   g. Travel time to off-campus classes
   h. Required professional reading
   i. Research where approved
   j. Additional preparation required for a new course, revision of an existing course, and/or a new assignment.

   Allowances should be made for class size and clerical assistance.

3. That a number of hours measured to the nearest quarter-hour be established for each course according to time required for preparation, actual class time, and evaluation. These hours should be based as much as possible on reasonable time actually spent in the activities described, and should be subject to revision from time to time as practice indicates the need for revision.

4. That no preparation time be allowed for duplicate classes.

5. That clerical assistance be provided subject to acceptance by the teacher involved, but substituting on an hour-for-hour basis against the teacher's load, creditable toward his 35 to 40 clock-hour per week load requirement for classified clerical assistance, and on two-hours-for-one basis for student clerical assistance.

6. That no distinction be made between 50-minute and one clock-hour class periods.

7. That no distinction other than length of time spent in class be made between lecture-type classes and laboratory sessions.

8. That overload be avoided if possible, but if allowed unavoidably or through prudent exercise of judgment, the teacher be compensated in a single semester-end payment to the extent of 10.4 percent of his monthly salary for each hour of overload averaged throughout the semester.

It is recommended that a computational method which determines the total of the various contributions made to teaching load by various assignments and other duties be used to measure teaching load. Thirty-five to 40 clock-hours per week (the exact load to be established by the board) should be the basis. Teaching load may be reduced in part by clerical assistance. A suggested instrument for determining teaching load by the proposed method after establishment of operational parameters is appended.

Advantages

Implementation of the proposed method not only would allow equalization of work load among faculty members of the various departments intramurally; it also would allow comparison of teaching loads with those of faculties of other schools using the same method. In addition, since clock-hours are used, the teachers' work load may be communicated to the public, including laymen, in terms they can understand. This would settle the minds of critics who believe teachers currently are being paid for "banker's hours" only. Furthermore, comparison of length of the teacher's work-week with that of other professions is possible as a result of the common measurement term.

Using this method, it is not necessary to assign reduced teaching loads to part-time administrators. While their assignment probably would include fewer hours actually spent in the classroom, they, too, would put in their 35 to 40 clock-hours per week, but apportioned a bit differently, with more standing committee work and time for administrative responsibilities and fewer hours for classroom-related functions.

Disadvantages

Since the relative and absolute number of hours assigned to the three aspects of each course (preparative, contact, and evaluative) is decided locally, comparison between schools would be difficult unless standard guidelines were established. Additionally, the less conscientious teacher would be able to pad the numbers somewhat on the initial determination of time requirements of the course, but this would be reduced in effect for those courses having more than one teacher unless a concerted effort were expended. This further amplifies the emphasis to be placed on what teachers actually do. The fact that habits and courses do indeed change will demand flexibility, but, at the same time, it may open the door to constant pressures on the administration to increase the number of hours allowed for the various unique aspects of specific courses.

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APPENDIX A

TEACHER LOAD DETERMINATION

(All times measured in average number of clock-hours per week)

Teacher's Name ____________________

Semester: ☐ Fall 19__

☐ Spring 19__

a. Course (List laboratories and seminars separately	b. Standard Class Enrollment	c. Actual Enrollment	d. Percentage Overenrollment	e. Preparation Time (Duplicate Classes=0)	f. Actual Time in Class	g. Evaluation Time	h. Column d times Column g	TOTAL of columns e,f,g, & h
Committee assignments:				▨		▨	▨	
				▨		▨	▨	
TOTALS								

Number of student advisees ___ ÷ 36 = ________

SUBTOTAL ________

Subtract Clerical Assistance Adjustment -

TEACHING LOAD ________

Subtract -40.00

OVERLOAD ________

PLACEMENT OF VOCATIONAL AND ACADEMIC INSTRUCTORS ON A SINGLE SALARY SCHEDULE

Discussion

In establishing equitable relationships in a single salary schedule, equivalents must be set up that will accomodate the classifications that have been established for the majority of the teachers in a district.

The only relationship that will be dealt with here is that of establishing equivalents for trade and industrial-vocational teachers based on the existing (academic) schedule. In staffing shop classes, it will be worth while to consider the fact that there is a difference in philosophy, objectives, and preparation between academic and vocational teachers.

The standard teaching credential requires a baccalaureate degree for its basis, and therefore presents a minimum problem in placement on a single salary schedule.

A trade and industrial credential (standard designated subjects teaching credential, Article 8) is based on a different principle. The vocational classes are two-to-four-hour approved classes for which reimbursement from Federal and State vocational funds may be obtained by the district. The objective is the development of specific, employable skills for the students in the junior college. In order to have a teacher who is occupationally competent, the basic requirements for a trade and industrial teaching credential are as follows:

1. Graduation from a secondary school.
2. Subject matter preparation - one of the four following options:
    a. a total of seven years of preparation as a journeyman worker based upon apprenticeship training, with one year of the required journeyman experience during the preceding three years in the trade.
    b. an engineering degree or registration as a professional engineer in the State of California and, in addition, three years of industrial or appropriate occupational experience.
    c. a baccalaureate degree and, in addition, three years of occupational experience consonant with the major field of the degree and related to the occupational field to be named in the credential.
    d. an associate degree or 60 semester hours of course work from an approved institution, and three years of experience as a journeyman or comparable qualified worker in addition

to an apprenticeship or other recognized equivalent occupational preparation.

3. Successful completion of appropriate written and/or manipulative examination to determine subject matter competency.

In discussing the term "apprenticeship training," it seems logical to cite a specific trade and examine it with respect to the training that is involved. Using such a familiar trade as carpentry, one finds that the required apprenticeship training is as follows:

Subject	Hours
Foundations	760
Framing	1200
Roof Framing and Erection	800
Exterior Finish	600
Interior Finish	600
Stair Building	200
Concrete Construction	1640
Timber Construction	200
Total Hours	6000

As the apprentice follows the schedule set up above, he is developing the manipulative skills that are required by the trade. In addition, each apprentice is required to attend a minimum of 144 hours of related instruction classes each year. Most of this related training is done outside the working hours, either two hours two nights per week, or a four-hour class once per week. This related instruction has been broken down into a four-year course of study in which the apprentice learns why he does what he does on the job. Throughout the training period this instruction is coordinated with the work processes, when practical.

During the entire training period the apprentice is paid at least the following minimum rates based on journeyman's wages:

First	6 months	60%
Second	6 months	65%
Third	6 months	70%
Fourth	6 months	75%
Fifth	6 months	80%
Sixth	6 months	85%
Seventh	6 months	90%
Eighth	6 months	95%

During this training the apprentice has, incidentally, learned to work with other people and has had the experience of getting employment; thus, he has established a practical viewpoint with respect to the world in which we work and live.

Putting this training into an equivalent of college units simply for a basis of comparison, the following has been developed:

Related instruction - 3 units per semester for 10 semesters	- 30 units
6000 hours of work compared to laboratory work of 1 unit equals 60 hours	- 100 units
Total of training	- 130 units

Recommendations

In terms of teaching, the training should be judged on the occupational competency that has been gained. The fact that the vocational teacher is paid while becoming occupationally competent is irrelevant.

Since all of the requirements that have been discussed are designed to assure a well-qualified teacher in that field, it would be logical to place such a teacher at the same place on the salary schedule that has been established for other teachers with a bachelor's degree.

When the trade and technical vocational teacher has been issued a credential with postponement of requirements, he must complete the following: (1) twenty-two units of professional teacher education courses, twelve semester hours of professional courses in a vocational teacher education curriculum and ten semester hours of elective courses approved by the Supervisor of the Division, or in lieu thereof, courses from an approved institution when such substitution is approved by him; (2) completion of an associate degree or 60 semester hours of course work from an approved institution; and (3) successful completion of written or manipulative examinations or both, given by the Division, to determine subject matter competency. One of the professional vocational education course requirements is to complete a course of instruction.

Many vocational teachers are willing to work towards a bachelor's degree, and this requires a minimum of at least sixty units for those teachers who have come into the teaching field with minimum academic requirements. Therefore, it would seem reasonable to place a voccational teacher who has completed all the requirements for his credential and has obtained his bachelor's degree, in the same classification as an academic teacher with a master's plus thirty units.

Sources of Information

California, State of. *California Administrative Code*, Title 5, Sections 6302-6359.

Ralston, Lee W., Vocational Administrator, Los Angeles County Schools

Apprenticeship Standards for Carpentry in Los Angeles County

Vocational Teacher's Salary Schedule, Memorandum, April 18, 1966, Pomona Unified School District.

MAINTAINING OCCUPATIONAL CURRENCY

The Problem

How does a school maintain recency of experience for the technical or vocational instructor who has been teaching five or more years?

Discussion

In the vocational-technical areas of learning, the problem of maintaining currency of knowledge is much more critical than in the academic areas, where the "state of the art" changes relatively slowly. In the academic areas, a sabbatical leave every seven years probably is frequent enough to allow instructors working in those areas to remain current with their fields. Vocational areas, however, see occupational changes occurring so rapidly that changes brought about in a single year can be radical enough to have an impact on the curriculum and, as a result, on the job descriptions of the men needed to teach within that curriculum structure. A few examples of radical innovations which have been slow to find their way into the electronics curriculum are printed circuits and integrated circuits. In the case of integrated circuits, for example, a student needs solid grounding in chemistry and the industrial processes to understand them. In the case of printed circuits, the student needs grounding in photography and certain chemical processes. Except for those instructors who have entered teaching very recently, few have the experience in these areas needed to teach on the basis of such experience. In few cases are texts available to cover these new areas. The result may be that students are trained with yesterday's skills for yesterday's jobs. Similar examples could be cited from other trade areas; the point is that trade and industrial instructors can become obsolete much more quickly than their academic counterparts and, in fact, can become obsolete before tenure has been established.

Maintaining currency of experience, then, must be of continuing concern in the vocational areas. Not a year must be allowed to slip by without each instructor's updating himself in his trade area. The following suggestions maybe helpful in achieving this updating:

1. Read Current Literature

   This is perhaps the simplest, most obvious and least effective of the methods considered. While good current literature is available in virtually every field, the mere reading of it does not make one an expert, and it often is difficult to distinguish between technical articles that are pure fantasy, those that are real and significant, and those that represent the industry today. There is no substitute for going out into industry again and finding out what is of significance in the literature and what is "Buck Rogers." For example, should a modern electronics curriculum cover lasers in depth, or should they be covered just in passing? Should solid-state lasers or gas lasers be emphasized? As far as the literature is concerned, ruby lasers are still important, but in the field, gas lasers are the comers. I believe this points out the weakness in relying on literature for updating technical knowledge.

2. Summer Work in Industry

   Put the instructor back in industry each summer so that he may up-date himself in his field. This is a good suggestion, but it may create problems. If the instructor is a good worker, industry will lure him back each summer with good money offers; but it he returns to the same company each year, his experience will be confined to that company and the objective of a broad view of the field will be lost. The result in the classroom will be that he will teach his summer job to the students rather than teaching the greater field. It is at this point that the advisory committees can be used to good advantage. Let them help solve this problem by finding suitable jobs, perhaps at their own companies, and insuring that instructors are rotated from job to job each summer.

   This, however, doesn't solve the entire problem. Suppose the instructor wants to climb up the salary scale by going to summer school and accumulating additional credits. He has to decide between becoming a better teacher and earning more money. The solution appears to be an arrangement whereby summer job experience counts on the salary schedule, perhaps at the rate of one semester hour for each week worked in industry with a maximum of six hours per year. This solution is not without problems, however, because he is being paid for the work he does, while academic teachers pay for their university credits and lose salary while attending school. It will take an administrative genius to overcome the animosity generated by allowing such industrial credit, even though it is obvious that the best interests of trade and technical education are served by such a plan.

3. Inter-District Rotation Programs

Let districts join together and have rotating teachers who spend from a summer to an entire year in industry every three or four years. If schools go to the quarter system, solution number two has its problems in that the vocational programs would be under-staffed during the summer, and less than a full program could be offered. If this is what the community requires there is no problem; if the school plant is to be utilized maximally, however, this regular summer shortage of teachers must be overcome. By having extra teachers (not substitutes) who are part of a rotating group in each trade area, in-service training could be carried on continuously through the year by having one man in industry at all times. It would be necessary to overcome the problems of retirement credits, sick leave, holidays, etc. With determination at the state legislative level, however, these problems could be resolved. Insurance would have to be provided through advisory committees, local industry guarantees or otherwise, so that if a particular trade were undergoing a recession at the time a man was due to take his "recency" time off, he wouldn't just be thrown out to the wolves to fend for himself, but would be insured for the same tenure that academic teachers have. If the time were just three months or so, it might be all right to count that "unemployed" time as vacation. Beyond that, provisions would have to be made to guarantee income. Most school districts are not large enough to swing such a program alone, so this probably would have to be a multi-district plan.

4. Moonlighting

This is not a desirable possibility. Many vocational instructors are able to find part-time work in their fields, but it is doubtful that this type of "catch as catch can" employment is really helpful. The chances are that the man is not working at anywhere near the "state of the art" level in his field, and his experience may be merely a repetition of the experience he already has.

5. Combining Work and Teaching

A variation of solution number four is to have instructors work half-time at the college and half-time in industry for a semester. The remainder of the staff in the department can pick up the rest of his load, and with staff members rotating on industry assignment, even a department of a modest size could do this without having to join with other districts or schools. One disadvantage of this plan is that the instructor may have split allegiance; either his teaching or his industry experience could be slighted.

6. Have Trade Area Workshops

This is an old attempt at solving the problem, but perhaps not a very good one. The idea of bringing in guest speakers from industry to bring the staff up to date sounds good, but in so short a time the instructor has no opportunity to get out of the academic environment and really take the pulse of industry. Workshops are better than nothing, but they don't really solve the problem. They are, more than anything else, glorified "literature reading" in animated form. Circulating movies of recent developments in the trade fall into the same category.

7. Simulated Trade Experience

The possible use of simulated experiences in each trade area to achieve occupational currency has been suggested by Dr. Wayne McIntire, head of the Division of Administration and Supervision, Department of Education, San Fernando Valley State College. This school currently is offering with considerable success such a course in educational administration, which was developed with the help of grants from the Ford and Kellogg Foundations. The techniques used now are being explored by other schools and the military.

It may be possible to better utilize existing workshop situations by employing simulated job experence - that is, to determine what new skills, techniques and theory the instructor is to gain by his return to industry, refine and condense this information, and offer it in a simulated occupational environment by a "short course" of a week or two. This probably would require statewide planning in order to make it really efficient, but the possibility is challenging. It must be admitted that much of the experience a vocational instructor gains by returning to industry is a rehash of what he knows already, and by sorting out for his absorption only that which is recent, the updating process could become much more efficient and still would not remove needed teachers from their posts for extended periods of time.

An additional benefit of this program would be that the information transferred would represent a cross-section of the activity in the trade, rather than specialized information. A continual danger in industrial experience is that the instructor will teach only the industry in which he has had experience, and not the larger field. What would be taught at these simulated experience workshops would, of course, have to be determined by someone, but presumably if this is done on a large enough scale, full-time personnel could be continually sampling the trade and would know what to offer each year. This is envisioned as a yearly event engaged in by all vocational teachers, each in his own trade area, with regional workshops set up around the state during vacation periods, and credit offered for advance on the salary schedule.

It is felt the North Orange County Junior College District would benefit by carefully exploring this idea and perhaps running a trial summer program with neighboring districts joined in a single trade area.

Conclusions and Recommendations

The North Orange County Junior College District is large enough to pursue any of the possible solutions to the problem mentioned above. However, it is especially recommended for your consideration that rotating instructors and simulated instruction as described in solutions number three and seven be utilized. These would be bold steps to take, but this problem can be solved only by bold steps and moving forward into areas in vocational education not yet fully explored.

Sources of Information

The main source of ideas used in attempting to solve this problem was dicussion with classmates. Dr. Wayne McIntire of the San Fernando Valley State College suggested simulated instruction. These ideas, along with the original ones, then were developed by the writer.